### Przedsiebiorstwo Przemyslu Ziemniaczanego

#### PRODUCT SPECIFICATION

# POTATO STARCH "Superior Standard"

The edition number 14 from February 20, 2025 replacing edition number 13 from November 08, 2022

#### 1. PRODUCT CHARACTERISTIC

The subject of this description is a potato starch obtained by mechanical separation from the other potato component parts, then rinsed, cleaned, dried and sifted. The product has a form of uniformed white powder, with no clusters or lumps with taste and smell typical for potato starch.

- 1.1. Class type of product depending on purity degree:
  - "Superior Standard"
  - "Superior"

#### 2. RAW MATERIAL COMPOSITION

- industrial potatoes, starch potatoes

#### 3. QUALITY

3.1. Potato starch "Superior Standard" is meeting all the requirements of PN-93/A-74710.

3.2. Physicochemical parameters.

Properties	Requirements	Tests methods
Taste/ smell	typical for potato starch, no extraneous flavour	ZN-A/03-2002/S-2
Colour	clean white - acc. to CIE,L system	TJ.26
	not less than 93	
Moisture [%]	less than 20,0	PN-EN ISO1666:2000
рH	6,0-7,5	ZN-A/07-2002/S-6
Contents of ash in dry mass[%]	less than 0,35	PN-EN ISO3593:2000
Contents of mineral substances undissolved in 10% aqueous solution , in dry mass [%]	less than 0,06	ZN-A/09-2002/S-8
Contents of sulphur dioxide [mg/kg]	less than 10	ZN-A/10-2002/S-9
Macroscopic contamination [amount of specks in 1 dm <sup>2</sup> ]	less than 50 with 20% tolerance	ZN-A/05-2002/S-4
Contents of metals (mg/kg	g):	
Arsenic (As)	less than 0,100	PN-EN 15763:2010
Lead (Pb)	less than 0,100	PN-EN 15763:2010
Cadmium (Cd)	less than 0,01	PN-EN 15763:2010
Mercury (Hg)	less than 0,01	PN-EN 15763:2010
Cooper (Cu)	less than 0,30	PB-223/ICP ed. 4 dated 29.12.2022
Iron (Fe)	less than 8,0	PB-223/ICP, ed. 4 dated 29.12.2022

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3.3. Microbiologic parameters of class type "Superior Standard".

Features	Requirements	Test methodology	
Total amount of germs in 1 g	less than 10-5000 cfu	PN-EN	
		ISO 4833-2:2013-12	
Total amount yeast and mould in 1 g	less than 50 cfu	PN-ISO 21527-2:2009	
Bacillus cereus in 1 g	less than 10 cfu	PN-EN ISO 7932:2005	
Coli group bacteria in 1 g	less than 10 cfu	PN-ISO 4832:2007	
Staphylococcus koagulase-positive	absent	PN-EN ISO 6888-	
(staphylococcus aureus and other species in 1 g)		3:2004+AC:2005	
Salmonella in 25 g	absent	PN-EN	
· ·		ISO 6579-1:2017-04	
Clostridium botulinum in 1 g	absent	PN-A-86730:1989	
Clostridium perfringens in 1 g	absent	PB-579 ed. I	
		dated 16.11.2023	
Escherichia coli w 1 g	absent	PN-ISO 7251:2006	
Anaerobic sulphite-reducing spore-forming pacteria in 1 g	absent	PN-A-75052-10:1990	
Germs from Enterobacteriaceae family in 1 g	less than 10 cfu	PN-ISO 21528-2:2017-0	

#### 4. NUTRITION VALUE IN 100 GRAM OF THE PRODUCT

Nutrition value – 324 kcal (1356 kJ) Carbohydrates content (starch) - 80 g Protein content – max 0,30 g Fat content – max. 0,10 g

#### 5. GMO AND ALLERGENS STATEMENT

Potato starch does not contain allergens.

Potato starch has non GMO status and is not produced from genetically modified sources.

#### **6. CONSUMER PURPOSE**

In food industry as thickening agent for soups, sauces, etc., in production of cold sweet soups, for baking cakes, in production of dextrins, starch hydrolysates, starch syrups, glucose, starch modifying agents. In textile industry for aperturing of textiles. Furthermore used in: paper industry, mining industry, pharmaceutical, casting industry as well as in housekeeping. Potato starch is used also in production of flocculating biodegradable agents, glues and other technical preparations. There are no contraindications for using the product.

Product for further processing, not suitable for direct consumption.

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#### 7. PACKAGING

Potato starch is packed in accordance with PN-88/A-74705, in multi-valve paper bags with capacity of 20 kg and 25 kg net, polypropylene big-bags of 1000 kg or unit paper packaging of 0,5 kg and 1,0 kg.

Packaging has been certified by PZH

Marking includes the following data:

- -name and address of producer
- -name of product,
- -class type of product,
- -net weight in kg,
- -production date.
- -shift number,
- -expiry date,
- -lot number.

There is possibility to pack and mark the product according to individual requirements of the customer.

#### 8. TERM AND STORAGE CONDITIONS

Potato starch should be stored in accordance with PN-88/A-74705, in a dry, clean and airy room without foreign smell with recommended relative air humidity below 75 % and temperature below 20°C.

Shelf life 5 years from production date.

#### 9. TRANSPORT CONDITIONS

Transportation has to be well-kept and be in good technical condition protecting from contamination and assuring proper quality of goods in terms of health and especially protection from moisture.

#### 10. DELIVERY DOCUMENTS

Certificate of Analysis

All the information and data contained herein are based on our long-term experience and supported by scientific knowledge. However, this document is of informative nature only. Should you have any doubts we will be happy to provide you with detailed information and answer all your questions.

	Name and surname	Position	Date	Signature
Elaborated:	Monika Mikulska- Przepiórka	Quality Control Manager	20.02.2025	Mikulska-Przepiórk
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